



(51) International Patent Classification⁷: **A61B 18/18**

(21) International Application Number:
PCT/EP2004/010928

(22) International Filing Date:
30 September 2004 (30.09.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0323158.6 3 October 2003 (03.10.2003) GB
0415638.6 13 July 2004 (13.07.2004) GB

(71) Applicant (for all designated States except US): **MICROSULIS LIMITED** [GB/GB]; Microsulis House, Parklands Business Park, Denmead, Hampshire PO7 6XP (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CRONIN, Nigel**

[GB/GB]: 14 Englishcombe, Lane, Bath BA2 2ED (GB).
GUY, Adam [GB/GB]; University of Bath, Department of Physics, Bath BA2 7AY (GB).

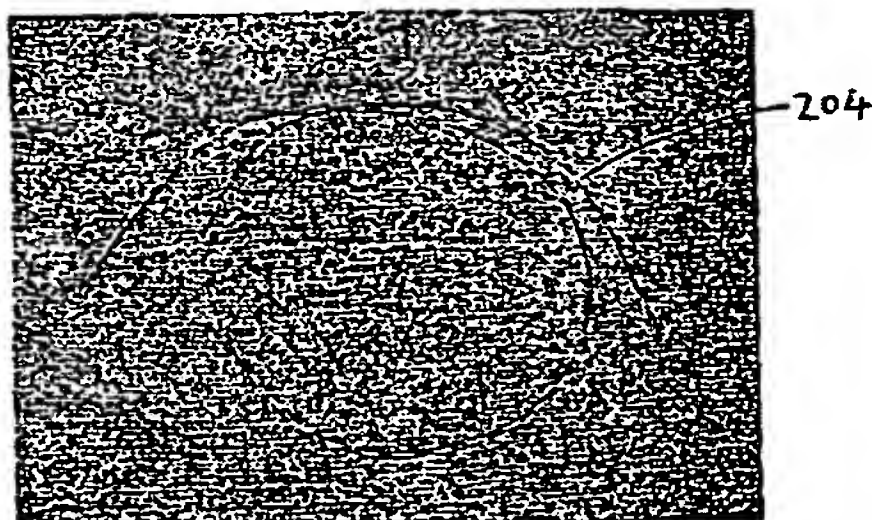
(74) Agent: **KUNZ, Herbert**; Hammonds, Karl-Scharnagl-Ring 7, 80539 Munich (DE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

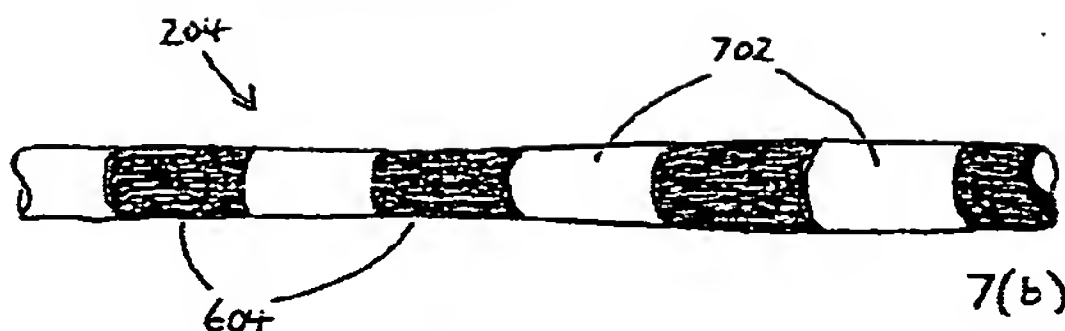
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

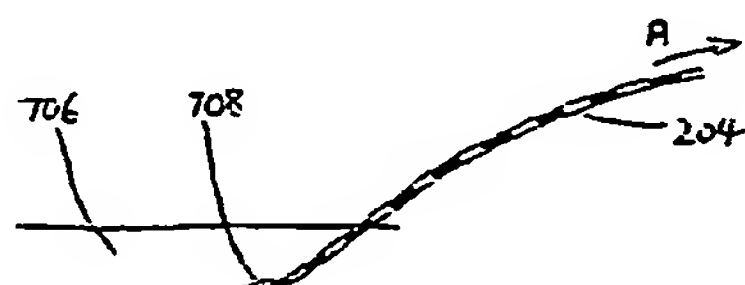
(54) Title: **DEVICE AND METHOD FOR THE TREATMENT OF HOLLOW ANATOMICAL STRUCTURES**



7(a)



7(b)



7(c)

(57) **Abstract:** A method of treating hollow anatomical structures, for example varicose veins. The method comprises: providing an elongate radiation applicator, the elongate applicator including an emitter, the emitter being coupled to a source of microwave radiation and being adapted to emit said radiation; introducing the applicator into a hollow anatomical structure, the hollow anatomical structure including a section of target tissue; traversing the applicator past the section of target tissue while said emitter emits microwave radiation of a predetermined intensity into said section. Techniques are used (markings on the coaxial cable in conjunction with an audible tone) so that the user makes the traversal at a predetermined rate so that uniform application of the radiation to the tissue, and effective occlusion, occurs. An applicator for performing the treatment is also disclosed.